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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,179	06/24/2003	Amalavoyal Chari	TROPOS-1003-1-US	9951

7590 09/30/2005

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EXAMINER	
MOORE, IAN N	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,179	CHARI ET AL.	
	Examiner	Art Unit	
	Ian N. Moore	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7-17 and 19-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *63* is/are allowed.

6)☒ Claim(s) *1-4,7-14,16,17,19-34,36-62,64-67* is/are rejected.

7)☒ Claim(s) *15 and 35* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract discloses an implied language "**invention**" in lines 1 and 11. The abstract exceeds **150** words. Applicant is reminded of the proper language and format for an abstract of the disclosure.

> The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.
> It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

2. Claim 62 is objected to because of the following informalities:

Claim 62 recites "**a DHCP server** the first wireless access node" in lines 7-8. For clarity, it is suggest to insert either a comma "," or semicolon ";" between "DHCP server" and "the first wireless access node".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. New claims 64 and 65 are rejected under 35 U.S.C. 102(e) as being anticipated by La Porta (US006763007B1).

Regarding new claim 64, La Porta discloses a method of allowing a client (see FIG. 2, Mobile Device, MD 114) to access a wireless system (see FIG. 2, Domain 1 and Domain 2), the system comprising at least a first wireless access node (see FIG. 2, BS7, or FIG. 17, BS9, or access routers; see col. 15, lines 60-66; see col. 7, lines 60-66), the method comprising:

the first wireless access node (FIG. 2, BS7, or FIG. 17, BS9) detecting the client (see FIG. 2, MD 114 or FIG. 17, MD 114) seeking access to the system, the first wireless access node being wire connected to a back bone network (see FIG. 2, wire connection from BS to Internet 100); see FIG. 3, Steps 170,172,174; see col. 9, lines 65 to col. 10, line 5,46-67; see col. 16, line 39-45; col. 32, line 31-34; MD 114 transmits DHCP_DISCOVER message to base station (BS 7 or BS 9));

the first wireless access node obtaining client information (see col. 32, line 35-39; see col. 13, line 40-46; BS 7 or 9 forwards/relays MD's DHCP_ DISCOVER message), the client information comprising an IP address of the client's default gateway (see col. 16, line 46-50; see col. 32, line 40-46; home base station IP address, or home domain address), wherein the IP address of the client's default gateway is assigned to the client by a DHCP server (see FIG. 6, DHCP server 272; see col. 12, line 15-39; see col. 16, line 46-52; see col. 32, line 35-46; DHCP_OFFER message);

the first wireless node providing the client a first communication path (see FIG. 2, an established path for packets for MD 114; see col. 32, line 39-46; see col. 16, line 46-55; a base station relays/forwards the DHCP_OFFER path set up message to MD) to and from destination

(see FIG. 2, path to/from Corresponding Node CN 110; see col. 4, lines 49-56; see col. 5, line 36-42)), the first communication path able to include wired (see FIG. 2 or 17, wired links between BS 7 or 9, Routers, via Internet 100) and wireless communication links (see FIG. 2 or 17, wireless links between MD 114 and BS 7 or BS 9), and

aiding in the routing through the first communication path between the client and destination based upon detection of the client (see FIG. 2 and 17, BS 7 or BS 9 assist/aids the routing between MD and CN based upon detection of the mobile's request for path setup; see col. 10, line 15-22; 55-67; see col. 16, line 46 to col. 17, line 5; see col. 32, line 44-53).

Regarding claim 65, La Porta discloses the client (see FIG. 2, Mobile Device, MD 114) roaming from the first wireless access node (FIG. 2, BS7, or FIG. 14, BS 11) to a second access node (see FIG. 2, BS8));

the second wireless access node (FIG. 2, BS8, or FIG. 17, BS11) detecting a client (see FIG. 17, MD 114) seeking access to the system, the first wireless access node, able to connect to a back bone network (see FIG. 2, Internet 100); see FIG. 17, Step 550; see col. 28, lines 1-5; MD 114 transmits handoff path setup message to BS11);

obtaining client information (see col. 28, lines 6-31; BS11 lookup/identifies/obtains MD 114 information from routing table, old BS9, and Router R8; see FIG. 17, Step 552 and 566; see col. 30, lines 53-65)

the first wireless access node providing the client a second communication path (see FIG. 2, an established/acknowledge/updated handoff path for forwarding all packets for MD 114; see col. 31, lines 1-11; see col. 30, lines 40-53) to and from destination (see FIG. 2, packets/from to/from Corresponding Node 110 (see col. 6, lines 1-10); note that BS 11 provides MD 114 with

acknowledged handoff path to/from corresponding node), the communication path able to include wired (see FIG. 17, wired links between BS11, Routers, root router 360 and Internet 100) and wireless communication links (see FIG. 17, wireless links between MD 114 and BS11); see FIG. 17, step 568; see col. 31, lines 5-12, and

aiding in a routing through the second communication path between the client (see FIG. 20, MD 608) and destination (see FIG. 20, CN 600) based upon detection of the client (see FIG. 17, steps 550,552,566 and 568; see col. 28, lines 4-12; 25-31; see col. 30, lines 60 to col. 31, lines 11; see col. 34, lines 15-34; note that BS11 (in FIG. 17) or BS 606 (in FIG. 20) assist/aids the updated routing/tunneling between MD and CN after detection a handoff request from MD).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4,7-11, 16-17,19-21,23,24,38,39,41-56,58-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta in view of Csapo (U.S. 2003/0202497A1).

Regarding claims 1, 58, and 62, La Porta discloses a method of allowing a client (see FIG. 2, Mobile Device, MD 114) to access a wireless system (see FIG. 2, Domain 1 and Domain 2), the system comprising at least a first wireless access node (see FIG. 2, BS7, or FIG. 17, BS9, or access routers; see col. 15, lines 60-66; see col. 7, lines 60-66), the method comprising:

the first wireless access node (FIG. 2, BS7, or FIG. 17, BS9) detecting the client (see FIG. 2, MD 114 or FIG. 17, MD 114) seeking access to the system, the first wireless access node, able to connect to a back bone network (see FIG. 2, Internet 100); see FIG. 3, Steps 170,172,174; see col. 9, lines 65 to col. 10, line 5,46-67; see col. 16, line 39-45; col. 32, line 31-34; MD 114 transmits DHCP_DISCOVER message to base station (BS 7 or BS 9));

the first wireless access node obtaining client information (see col. 32, line 35-39; see col. 13, line 40-46; BS 7 or 9 forwards/relays MD's DHCP_ DISCOVER message), the client information comprising an IP address of the client's default gateway (see col. 16, line 46-50; see col. 32, line 40-46; home base station IP address, or home domain address), wherein the IP address of the client's default gateway is assigned to the client by a DHCP server (see FIG. 6, DHCP server 272; see col. 12, line 15-39; see col. 16, line 46-52; see col. 32, line 35-46; DHCP_OFFER message);

the first wireless node providing the client a first communication path (see FIG. 2, an established path for packets for MD 114; see col. 32, line 39-46; see col. 16, line 46-55; a base station relays/forwards the DHCP_OFFER path set up message to MD) to and from destination (see FIG. 2, path to/from Corresponding Node CN 110; see col. 4, lines 49-56; see col. 5, line 36-42)), the first communication path able to include wired (see FIG. 2 or 17, wired links between BS 7 or 9, Routers, via Internet 100) and wireless communication links (see FIG. 2 or 17, wireless links between MD 114 and BS 7 or BS 9), and

aiding in the routing through the first communication path between the client and destination based upon detection of the client (see FIG. 2 and 17, BS 7 or BS 9 assist/aids the

routing between MD and CN based upon detection of the mobile's request for path setup; see col. 10, line 15-22; 55-67; see col. 16, line 46 to col. 17, line 5; see col. 32, line 44-53).

La Porta does not explicitly discloses the first wireless access node wirelessly connection to a backbone network.

However, the above-mentioned claimed limitations are taught by Csapo. Csapo teaches the first wireless access node (see FIG. 2, AP 231) wirelessly connection to a back bone network (see FIG. 2, PSTN via MSC 140 or Internet via PDSN 150; see page 3, paragraph 37; see page 4, paragraph 38) and the first wireless node providing the client (see FIG. 2, MS 241) a communication path (see FIG. 2, a path from MS 241) to and from a destination (see FIG. 2, the destination device which MS 241 is communicating via PSTN or Internet), the communication path able to include wired (see FIG. 2, a wire communication links between BTS 221, BSC 210, MSC 140, PSDSN 150, Internet and PSTN) and wireless communication links (see FIG. 2, a wireless communication links between BTS 221, AP 231, and MS 241); see page 3, paragraph 34-37; see page 4, paragraph 38-39. In view of this, having the system of La Porta and then given the teaching of Csapo, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of La Porta, for the purpose of providing a first wireless access node wirelessly/air connection to an Internet/PSTN, as taught by Csapo, since Csapo states the advantages/benefits at page 1, paragraph 6-7 that it would provide an integrated wireless network that comprises wireless public network and a wireless local area network. The motivation being that by implementing wireless/air interface between access points and the core network PSTN/Internet, it would also provide 802.xx communication services to

mobile stations over a relatively large geographical area, without incurring the cost of a large wire line backhaul network to couple all the 802.xx access points to a core network.

Regarding claims 2 and 59, Csapo discloses at least one wireless hop (see FIG. 2, a wireless hop since line 290 can be air interface; see page 4, paragraph 4) between the first access node (see FIG. 2, AP 231) and a third access node (see FIG. 2, AP 232). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of La Porta as taught by Csapo for the same reason stated in Claims 1 and 58 above.

Regarding claims 3 and 60, La Porta discloses the client (see FIG. 2, Mobile Device, MD 114) roaming from the first wireless access node (FIG. 2, BS7, or FIG. 14, BS 11) to a second access node (see FIG. 2, BS8));

the second wireless access node (FIG. 2, BS8, or FIG. 17, BS11) detecting a client (see FIG. 17, MD 114) seeking access to the system, the first wireless access node, able to connect to a back bone network (see FIG. 2, Internet 100); see FIG. 17, Step 550; see col. 28, lines 1-5; MD 114 transmits handoff path setup message to BS11);

obtaining client information (see col. 28, lines 6-31; BS11 lookup/identifies/obtains MD 114 information from routing table, old BS9, and Router R8; see FIG. 17, Step 552 and 566; see col. 30, lines 53-65)

the first wireless access node providing the client a second communication path (see FIG. 2, an established/acknowledge/updated handoff path for forwarding all packets for MD 114; see col. 31, lines 1-11; see col. 30, lines 40-53) to and from destination (see FIG. 2, packets/from to/from Corresponding Node 110 (see col. 6, lines 1-10); note that BS 11 provides MD 114 with

acknowledged handoff path to/from corresponding node), the communication path able to include wired (see FIG. 17, wired links between BS11, Routers, root router 360 and Internet 100) and wireless communication links (see FIG. 17, wireless links between MD 114 and BS11); see FIG. 17, step 568; see col. 31, lines 5-12, and

aiding in a routing through the second communication path between the client (see FIG. 20, MD 608) and destination (see FIG. 20, CN 600) based upon detection of the client (see FIG. 17, steps 550,552,566 and 568; see col. 28, lines 4-12; 25-31; see col. 30, lines 60 to col. 31, lines 11; see col. 34, lines 15-34; note that BS11 (in FIG. 17) or BS 606 (in FIG. 20) assist/aids the updated routing/tunneling between MD and CN after detection a handoff request from MD).

Regarding claims 4 and 61, the combined system of La Porta and Csapo discloses all part of the limitations as described above in claims 1 and 3. Csapo discloses at least one wireless hop (see FIG. 2, a wireless hop since line 290 can be air interface; see page 4, paragraph 4) between the second access node (see FIG. 2, AP 233) and a forth access node (see FIG. 2, AP 234). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of La Porta as taught by Csapo for the same reason stated in Claims 1 and 58 above.

Regarding claim 7, the combined system of La Porta and Csapo discloses all part of the limitations as described above in claims 1 and 3. Moreover, La Porta discloses the first access node, the second wireless access node and a common cluster (see FIG. 2, Domain 1). La Porta also discloses that a plurality of access nodes (see FIG. 2, BS5-BS7) belong to a common cluster (see FIG. 2, Domain 1); see col. 7, lines 45-55. Csapo also closes a plurality of access nodes (see FIG. 2, AP 231 and AP 235) belong to a common cluster (see FIG. 2, a domain controlled by

BTS 221). Neither La Porta nor Csapo explicitly discloses a first and second access nodes belong to a common cluster. However, assigning or setting or configuring the first and second access nodes in a common cluster/domain does not define a patentable distinct invention over that in the combined system of La Porta and Csapo since both the invention as a whole and the combined system of La Porta and Csapo are directed to assigning/configuring the access routers/BSs in the same domain so as to provide a handoff to a moving mobile device, and the combined systems clearly teaches that there are multiple access routers/BSs in a common domain. The degree in which having the first and second access nodes in the common cluster presents no new or unexpected results, so long as the handoff is performed. Therefore, to have the first and second access nodes in a common domain would have been routine experimentation and optimization in the absence of criticality.

Regarding claim 8, the combined system of La Porta and Csapo discloses all part of the limitations as described above in claims 1 and 3. Moreover, La Porta discloses the first wireless access node (see FIG. 2, BS7) belong to a first cluster (see FIG. 2, Domain 1), and the second wireless access node (see FIG. 2, BS 8) belongs to a second cluster (see FIG. 2, Domain 2); see col. 7, lines 45-52; see col. 8, lines 4-12.

Regarding claim 9, La Porta discloses the first cluster is connected to a first subnet (see col. 7, lines 50-55), and the second cluster is connected to a second subnet (see col. 7, lines 65 to col. 8, lines 5).

Regarding claim 10, La Porta discloses second wireless access node allows the client to maintain a same default gateway IP address as client roams from the first wireless access node (see col. 28, lines 14-27; see col. 30, lines 34-50; see FIG. 20, FA 644 and FA 610; see FIG. 23,

step 706 and see FIG. 24, 724 and 726; BS11 accepts/allows MD to maintain/continue the same address of the old router/BS IP address as BS11 moves in from old/previous router/BS in order to perform a handoff).

Regarding claim 11, the combined system La Porta and Csapo disclose all limitation as described above in claims 1 and 3. La Porta discloses second wireless access node allows the client to maintain a same default gateway IP address (see col. 10, lines 55-65; home/ default gateway IP address) as client roams from the first wireless access node (see col. 28, lines 14-27; see col. 30, lines 34-50; see FIG. 20, FA 644 and FA 610; see FIG. 23, step 706 and see FIG. 24, 724 and 726; BS11 accepts/allows MD to continue using the same address of the old router/BS address as BS11 moves in from old router/BS in order to perform a handoff.)

Regarding claim 16, La Porta discloses a first gateway (see FIG. 2, Root Router 150) maintains information (see FIG. 2, Home Agent HA 152) pertaining to the client (see FIG. 2, MD 114; see col. 7, lines 54-60; Root router 150 contains HA 152 which pertains MD information).

Regarding claim 17, La Porta discloses the first gateway (see FIG. 2, Root Router 150) is within a same cluster (see FIG. 2, Domain 1) as the first wireless access node (see FIG. 2, BS7); see col. 7, lines 45-62.

Regarding claim 19, La Porta discloses the third gateway (see FIG. 2, Root Router R6) is not within a same cluster (see FIG. 2, Domain 2) as the first wireless access node (see FIG. 2, BS7) maintains information pertaining (see FIG. 2, Home Agent HA) to the client; see col. 8, lines 2-17.

Regarding claims 20 and 21, La Porta discloses at last two gateways (see FIG. 2, Root Router 150 and R6) maintain client information parameters (see FIG. 2, Home Agent HA 152); see col. 7, lines 45-62; see col. 8, lines 2-17.

Regarding claim 23, La Porta discloses the second gateway (see FIG. 2, Root Router R6) is within a same cluster (see FIG. 2, Domain 2) as the second wireless access node (see FIG. 2, BS8) maintains information pertaining (see FIG. 2, Home Agent HA) to the client; see col. 8, lines 2-17.

Regarding claim 24, La Porta discloses the first access node references at least **one** of: a first gateway (see FIG. 2, Root Router 150) within a same cluster (see FIG. 2, domain1) as the first access node, and a third gateway, to obtain client information regarding the client (see FIG. 2, MD 114; see col. 7, lines 54-60; Root router 150 contains HA 152 which pertains MD information).

Regarding claim 38, La Porta discloses an IP-in-IP tunnel (see col. 33, lines 60-65) is created between a first gateway (see FIG. 2, Root Router 150) of the first cluster and a second gateway (see FIG. 2, Root Router R6) of the second cluster (see col. 7, lines 14-25; see col. 5, lines 22-26; see col. 8, lines 41-60; see col. 10, lines 24-45).

Regarding claim 39, La Porta discloses the first cluster is connected to a first subnet (see col. 7, lines 50-55), and the second cluster is connected to a second subnet (see col. 7, lines 65 to col. 8, lines 5), and information destined for the client through the first gateway (see FIG. 2, Root Router 150) is rerouted to the second gateway (see FIG. 2, Root Router R6) through an IP-in-IP encapsulated tunnel (see col. 33, lines 60-65); see col. 7, lines 14-25; see col. 5, lines 22-26; see col. 8, lines 41-60; see col. 10, lines 24-45; see col. 33, lines 60-65;

Regarding claim 41, La Porta discloses data traffic for the client is received by the first gateway, encapsulated within an IP datagram having a same IP address as the second gateway, and routed through the tunnel (see FIG. 20, see col. 34, lines 10-35; see FIG. 23 and 24; see col. 26, lines 12 to col. 37, lines 16; see col. 7, lines 14-25; see col. 5, lines 22-26; see col. 8, lines 41-60; see col. 10, lines 24-45.

Regarding claim 42, La Porta discloses the second gateway decapsulates the IP datagram by stripping an IP header, and routes the data traffic based upon an IP destination address (see FIG. 20, Router 604 decapsulte IP datagram and sends the packet to MD608 based upon an IP destination address (i.e. FA); see col. 34, lines 10-65).

Regarding claim 43, La Porta discloses a first IP address that is consistent with a local subnet is dynamically assigned to the client by the DHCP server (see FIG. 3 and FIG. 4; see col. 9, lines 26 to col. 10, lines 45).

Regarding claim 44, La Porta discloses a first IP address is statically assigned (see FIG. 3 and FIG. 4; see col. 9, lines 26 to col. 10, lines 45).

Regarding claims 45 and 46, La Porta discloses the first IP address remains fixed as the client roams (see FIG. 3 and FIG. 4; see col. 9, lines 26 to col. 10, lines 45; see col. 34, lines 10-65; remains fixed by using COA).

Regarding claim 47, La Porta discloses wherein a default gateway IP address that is consistent with a local subnet (see col. 10, lines 55-65; home/local domain subnet IP address) is dynamically assigned to the client by the DHCP server (see col. 10, lines 55 to col. 11, lines 10).

Regarding claim 48, La Porta discloses wherein a default gateway IP address is statically configured (see col. 16, line 47-67; see col. 32, line 35-50; see col. 10, lines 55 to col.

11, lines 10; home base station address does not change, thus the address is static; see col. 28, lines 15-31; the home/default domain subnet IP address remains fixed as MD moves into foreign domain since home/default address is need to establish the tunnel).

Regarding claims 49 and 50, La Porta discloses the default gateway IP address route on the client device remains fixed as client roams (see col. 32, lines 30-67; see col. 28, lines 15-31; the home/default domain subnet IP address remains fixed as MD moves into foreign domain since home/default address is need to establish the tunnel).

Regarding claims 51,52,53 and 54, La Porta discloses both the first IP address (see FIG. 9, Mobile IP address) and the default gateway route on the client device (see col. 32, lines 30-67; see col. 28, lines 15-31; a path/route of home/default subnet/domain on the MD) remain fixed as the client roams within a cluster (see FIG. 2, MD 114 moves within domain 1), both the first IP address and the default gateway route on the client device remain fixed as the roams between clusters having different subnets (see FIG. 2, MD 114 moves from domain 1 to domain 2 having different subnets); see col. 7, lines 45 to col. 8, lines 60).

Neither La Porta, Csapo nor Wang explicitly discloses clusters having a common subnet. However, roaming between clusters having a common subnet does not define a patentable distinct invention over that in the combined system of La Porta and Csapo since both the invention as a whole and the combined system of La Porta and Csapo are directed to roaming within a common/same domain or different domain with different subnets. The degree in which designing the system with clusters having a common subnet presents no new or unexpected results, so long as the mobile device is able to roam in successfully between the same domain

and different domains. Therefore, to clusters having a common subnet would have been routine experimentation and optimization in the absence of criticality.

Regarding claim 55, La Porta discloses updating a routing table for each of the access nodes (see col. 28, lines 15-25; see col. 30, lines 65 to col. 31, lines 9; updating routing table in BS11; see col. 29, lines 45 to col. 30, lines 10; updating routing table in BS9) and gateways that exist in the communication path between the first access node and the destination (see col. 28, lines 55 to col. 29, lines 5; a routing table for gateway 360 (see FIG. 17) is updated; see col. 8, lines 40-60; routing information for gateway Root router 150 and R6 are updated (see FIG. 2)).

Regarding claim 56, the combined system La Porta and Csapo disclose all limitation as described above in claims 1. La Porta discloses updating routing tables of the other network elements (see FIG. 2, Root Routers 150, R6, BS6, R4, R5; see FIG. 17, Router 360, R8, R7) in the backbone network (see col. 28, lines 15-25; see col. 30, lines 65 to col. 31, lines 9; updating routing table in BS11; see col. 29, lines 45 to col. 30, lines 10; updating routing table in BS9; see col. 28, lines 55 to col. 29, lines 5; a routing table for gateway 360 (see FIG. 17) is updated; see col. 8, lines 40-60; routing information for gateway Root router 150 and R6 are updated (see FIG. 2)).

7. Claim 12-14,25,37,66, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta in view of Csapo, as applied to claims 1 above, and further in view of Fujimori (US006542510B1).

Regarding claim 12, the combined system La Porta and Csapo disclose all limitation as described above in claims 1. La Porta discloses the first wireless access node determining an IP address of the client (see col. 28, lines 5-10).

Neither La Porta nor Csapo explicitly discloses detecting an IP address from the MAC address. However, Fujimori discloses detecting an IP address of a client from the MAC address of a client (see col. 1, lines 35-47; see col. 6, lines 50 to col. 7, lines 40; RARP detects IP address of the client station from the physical/MAC address). In view of this, having the combined system of La Porta and Csapo, then given the teaching of Fujimori, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of mapping computer machine physical address (i.e. MAC) to IP address, as taught by Fujimori, since Fujimori states the advantages/benefits at see col. 1, lines 50-61, see col. 2, lines 29-45 that it would provide an IP address from the computer physical address. The motivation being that by utilizing RARP, it will reduce the network's sensitivity to bus resets and providing an unchanging physical address reference for use in RARP.

Regarding claim 13, La Porta discloses receiving an associating request from the client (see FIG. 3, Steps 170,172,174; see col. 9, lines 65 to col. 10, line 5,46-67; see col. 16, line 39-45; col. 32, line 31-34; MD 114 transmits DHCP_DISCOVER message to base station (BS 7 or BS 9).

Regarding claim 14, La Porta discloses determining client information parameter (see col. 32, line 35-39; see col. 13, line 40-46; BS 7 or 9 forwards/relays MD's DHCP_ DISCOVER

message; col. 28, lines 5-27; determining IP address of MD 114; see col. 16, line 46-50; see col. 32, line 40-46; home base station IP address, or home domain address).

Regarding claim 25, La Porta discloses the first wireless access node obtains the client information from a gateway (see FIG. 2, R6, or FIG. 17, Root router 360) by sending a request (see FIG. 17, step 552,554); see col. 28, lines 5-55).

Neither La Porta nor Csapo explicitly discloses an anti-ARP (see FIG. 6, RARP, Reversed ARP; see col. 1, lines 35-47; see col. 6, lines 50 to col. 7, lines 40). However, the above-mentioned claimed limitations are taught by Fujimori. In view of this, having the combined system of La Porta and Csapo, then given the teaching of Fujimori, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of mapping computer machine physical address (i.e. MAC) to IP address, as taught by Fujimori, since Fujimori states the advantages/benefits at see col. 1, lines 50-61, see col. 2, lines 29-45 that it would provide an IP address from the computer physical address. The motivation being that by utilizing RARP, it will reduce the network's sensitivity to bus resets and providing an unchanging physical address reference for use in RARP.

Regarding claim 37, the combined system La Porta and Csapo disclose all limitation as described above in claims 1 and 16. La Porta discloses a second gateway (see FIG. 17, R8) gratuitously sends a message (see FIG. 17, a message 554; see col. 28, lines 45-54) to an edge router (see FIG. 17, Domain root router 360) upon the client (see FIG. 17, MD 114) switching from a first cluster (see FIG. 17, a domain consists of R7, BS9 and BS10) to a second cluster (see

FIG. 17, a domain consists of R8, BS11 and BS12) so that an cache (see col. 29, lines 1-4; a routing table) within the edge router can be updated (see col. 29, lines 1-10).

Neither La Porta nor Csapo explicitly discloses an ARP (see Fujimori FIG. 4 and 5; ARP; see Fujimori col. 3, lines 40-67; see col. 4, lines 55-67; see col. 1, lines 35-50) and an ARP cache (see Fujimori FIG. 3, address table; see Fujimori col. 3, lines 30-39). In view of this, having the combined system of La Porta and Csapo, then given the teaching of Fujimori, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of utilizing ARP as taught by Fujimori, since Fujimori states the advantages/benefits at see col. 1, lines 35-50, see col. 2, lines 20-40 that it would provide the finding/locating/mapping computer physical address to an IP address. The motivation being that by utilizing ARP, it will provide nodes that generate ARP requests with additional information about responding nodes and by allowing for variable length ARP communication packets.

Regarding claim 66, La Porta discloses wherein a cache entry on the client remains fixed as the client roams (see FIG. 3 and FIG. 4; see col. 9, lines 26 to col. 10, lines 45; see col. 34, lines 10-65; cache/memory on the client remains fixed by using COA).

Neither La Porta nor Csapo explicitly discloses an ARP cache (see Fujimori FIG. 3, address table; see Fujimori col. 3, lines 30-39). In view of this, having the combined system of La Porta and Csapo, then given the teaching of Fujimori, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of utilizing ARP cache as taught by Fujimori, for the same motivation as stated above in claim 37.

Regarding claim 67, La Porta discloses both the first IP address (see FIG. 9, Mobile IP address) and the default gateway route on the client device (see col. 32, lines 30-67; see col. 28, lines 15-31; a path/route of home/default subnet/domain on the MD) remain fixed as the client roams within a cluster (see FIG. 2, MD 114 moves within domain 1), both the first IP address and the default gateway route on the client device remain fixed as the roams between clusters having different subnets (see FIG. 2, MD 114 moves from domain 1 to domain 2 having different subnets); see col. 7, lines 45 to col. 8, lines 60).

Neither La Porta, Csapo nor Fujimori explicitly discloses clusters having a common subnet. However, roaming between clusters having a common subnet does not define a patentable distinct invention over that in the combined system of La Porta, Csapo and Fujimori since both the invention as a whole and the combined system of La Porta, Csapo and Fujimori are directed to roaming within a common/same domain or different domain with different subnets. The degree in which designing the system with clusters having a common subnet presents no new or unexpected results, so long as the mobile device is able to roam in successfully between the same domain and different domains. Therefore, to clusters having a common subnet would have been routine experimentation and optimization in the absence of criticality.

8. Claim 22 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta in view of Csapo, as applied to claims 1 above, and further in view of well established teaching in art.

Regarding claim 22, the combined system La Porta and Csapo disclose all limitation as described above in claims 1. La Porta discloses maintains information (see FIG. 2, Home Agent HA 152) pertaining to the client (see FIG. 2, MD 114; see col. 7, lines 54-60; HA 152 which pertains MD information). Neither La Porta nor Csapo explicitly discloses a network management system. Official Notice is taken that both the concept and the advantages of providing a network management system are well known and expected in the art. In view of this, having the combined system of La Porta and Csapo, then given the teaching of well established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of providing a network management system, as taught by well established teaching in art. The motivation being that by utilizing a network management system, it will be easier for the service to provision/configure/update/upgrade the network, while keeping track of the customer information and billing information in one centralized management system.

Regarding claim 40, the combined system La Porta and Csapo disclose all limitation as described above in claims 1. La Porta discloses creation (see FIG. 3, step 182 and FIG. 4, step 212; create tunnel for COA), maintenance and removal (see FIG. 3, step 186 and FIG. 4, step 216, and FIG. 5, step 238; release tunnel with COA; see col. 9, lines 65 to col. 101, lines 65), of an IP-in-IP tunnel (see col. 33, lines 60-65) formed between the first gateway and the second gateway; see col. 7, lines 14-25; see col. 5, lines 22-26; see col. 8, lines 41-60; see col. 10, lines 24-45.

Neither La Porta nor Csapo explicitly discloses a network management system. Official Notice is taken that both the concept and the advantages of providing a network management

system are well known and expected in the art. In view of this, having the combined system of La Porta and Csapo, then given the teaching of well established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of providing a network management system, as taught by well established teaching in art. The motivation being that by utilizing a network management system, it will be easier for the service to provision/configure/update/upgrade the network, while keeping track of the customer information and billing information in one centralized management system.

9. Claims 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta in view of Csapo and Fujimori, as applied to claim 25 above, and further in view of well established teaching in art.

Regarding claim 31, the combined system La Porta, Csapo and Fujimori disclose all limitation as described above in claim 25. La Porta discloses request is transmitted until a response is received (see FIG. 17). Fujimori discloses anti-ARP request (see FIG. 6) is continuously transmitted and a response (see FIG. 7) is received (see col. 6, lines 50 to col. 7, lines 41). Neither La Porta, Csapo, nor Fujimori explicitly discloses retransmitted until a response is received. Official Notice is taken that both the concept and the advantages of retransmitting until a response/acknowledgement is received is well known and expected in the art. In view of this, having the combined system of La Porta, Csapo and Fujimori, then given the teaching of well established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta,

Csapo and Fujimori, for the purpose of retransmitting until a response/acknowledgement is received, as taught by well established teaching in art. The motivation being that by retransmitting the message until it receives a response/acknowledgement, it will increase the capability to ensure the receiving side successfully receives the message.

Regarding claim 32, La Porta also discloses information regarding the client is obtained by an access node (see FIG. 17, BS11) querying an address of the access node that is detecting the client (see col. 28, lines 1-55; a request message contains an IP address of the new base station, BS11; see FIG. 9). La Porta discloses wherein if a first requested node (see FIG. 17, R8) does not have the information regarding the client (see col. 28, lines 44-50; after performing IP address lookup, and determine that BS9 IP address, which has a client information, is not in a routing table), then first requested gateway requests the client information (see FIG. 17, steps 554; see col. 28, lines 45-54; R8 determine to forward the handoff request message) from another gateway (see FIG. 17, Domain Router 360). Fujimori discloses information is obtained by an access node (see FIG. 2, Node 18, or FIG. 1, node 2) querying a network interface card driver of the access node (see FIG. 3, Node 18 or 2, physical/machine address; note that a machine address (i.e. MAC address) is in a network interface card driver (NIC), which is used to query the IP address information; see col. 1, lines 50-60; see col. 7, lines 40-50). Thus, the combined system of La Porta, Csapo, Fujimori discloses information of the client is obtained by an access node querying a network interface card driver of the access node that is detecting the client.

Neither La Porta, Csapo, nor Fujimori discloses none of the gateway has information regarding the client. Official Notice is taken that both the concept and the advantages of

detection if none of the gateway have information regarding the (new) client, are well known and expected in the art. In view of this, having the combined system of La Porta, Csapo and Fujimori, then given the teaching of well established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta, Csapo and Fujimori, for the purpose of detection if none of the gateway having the information of new client, as taught by well established teaching in art. The motivation being that by detecting when none of the gateway have a new client information, it can increase the capability to utilize alternative method such as detection by MAC or physical machine address or NIC address to identify the client information; also see Fujimori see col. 1, lines 50-60; see col. 7, lines 40-50,

Regarding claim 33, La Porta also discloses information regarding the client is obtained by a wireless access node (see FIG. 17, BS11) querying an address of the access node that is detecting the client (see col. 28, lines 1-55; a request message contains an IP address of the new base station, BS11; see FIG. 9). La Porta further discloses wherein if a first requested node (see FIG. 17, R8) does not have the information regarding the client (see col. 28, lines 44-50; after performing IP address lookup, and determine that BS9 IP address, which has a client information, is not in a routing table), then first requested gateway requests the client information (see FIG. 17, steps 554; see col. 28, lines 45-54; R8 determine to forward the handoff request message) from another gateway (see FIG. 17, Domain Router 360). La Porta also discloses the first wireless access node obtaining the client information by inspecting a DHCP acknowledgement packet (see col. 32, lines 30-67). Fujimori discloses an IP address of the client (see FIG. 2, Node 18) is obtained by snooping IP datagrams originating from MAC address of

the client (see FIG. 2, MAC/physical address of Node 18; see col. 1, lines 35-47; see col. 6, lines 50 to col. 7, lines 40). Thus, the combined system of La Porta, Csapo, Fujimori discloses IP address of the client is obtained by snooping IP datagrams originating from MAC address of the client and inspection of a DHCP acknowledgement packet.

Neither La Porta, Csapo, nor Fujimori discloses none of the gateway has information regarding the client. Official Notice is taken that both the concept and the advantages of detection if none of the gateway have information regarding the (new) client, are well known and expected in the art. In view of this, having the combined system of La Porta, Csapo and Fujimori, then given the teaching of well established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta, Csapo and Fujimori, for the purpose of detection if none of the gateway having the information of new client, as taught by well established teaching in art. The motivation being that by detecting when none of the gateway have a new client information, it can increase the capability to utilize alternative method such as detection by MAC or physical machine address or NIC address to identify the client IP address; also see Fujimori see col. 1, lines 50-60; see col. 7, lines 40-50.

Regarding claim 34, the combined system La Porta, Csapo and Fujimori disclose all limitation as described above in claim 25 and 33. La Porta also discloses wherein information of the second gateway (see FIG. 17, Domain Router 360) is updated with the obtained client information (see FIG. 17, steps 562 and 554; see col. 30, lines 10-30).

10. Claim 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta in view of Csapo, as applied to claim 1 above, and further in view of Wang (U.S. 2004/0114559A1).

Regarding claim 26, La Porta discloses wherein if a first requested node (see FIG. 17, R8) does not have the client information (see col. 28, lines 44-50; after performing IP address lookup, and determine that BS9 IP address, which has a client information, is not in a routing table), then first requested gateway requests the client information (see FIG. 17, steps 554; see col. 28, lines 45-54; R8 determine to forward the handoff request message) from another gateway (see FIG. 17, Domain Router 360).

Neither La Porta nor Csapo explicitly discloses a first requested gateway. However, the above-mentioned claimed limitations are taught by Wang. Wang discloses wherein if a first requested gateway (see FIG. 2, the second access point AP2) does not have the client information (see FIG. 3, step 324, the second access does not have the node information since it just roams in), then first requested gateway requests the client information (see FIG. 3, step 324, inter-proxy request message requesting IP configuration information of the node) from another gateway (see FIG. 2, the first access point AP1 of plurality of access points, FIG. 3, step 326); see page 4, paragraph 38-43. In view of this, having the combined system of La Porta and Csapo, then given the teaching of Wang, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of providing a first requested gateway access point, as taught by Wang, since Wang states the advantages/benefits at page 2, para. 15-20 that it would enable the configuration information can be obtained by an access point from another access point having

this configuration information. The motivation being that by having one access point requesting information from the other, it will enable the access points support mobility for a node that does not support mobile IP.

Regarding claim 27, La Porta discloses the requests of the first node can be transmitted over a back haul interface (see FIG. 17, interface A) of the first node (see FIG. 17, R8); see col. 28, lines 35-40. Wang also discloses the requests of the first gateway (see FIG. 2, AP 2) can be transmitted over a back haul interface of the first gateway (see FIG. 2, AP2 network/backhaul interface toward the backbone network 4; see page 3, paragraph 32-33. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, as taught by Wang for the same reason stated in Claim 26 above.

Regarding claim 28, the combined system La Porta, Csapo and Wang disclose all limitation as described above in claims 26. Wang also discloses the requests can be unicast (see page 3, paragraph 18; a request to a single AP) as IP datagrams (see page 3, paragraph 19). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, as taught by Wang for the same reason stated in Claim 26 above.

Regarding claim 29 and 30, the combined system La Porta, Csapo and Wang disclose all limitation as described above in claims 26. Wang also discloses the requests can be multicast or broadcast to other gateways (see page 3, paragraph 18; multicast messages to multicast or broadcast group of APs). Therefore, it would have been obvious to one having ordinary skill in

the art at the time the invention was made to modify the combined system of La Porta and Csapo, as taught by Wang for the same reason stated in Claim 26 above.

11. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta in view of Csapo, as applied to claims 1 and 16 above, and further in view of Choyi (U.S. 2004/01019472).

Regarding claim 36, the combined system La Porta and Csapo disclose all limitation as described above in claims 1 and 16. La Porta discloses a device outside of the system (see FIG. 2, CN 110) sending frames address to the client IP address to first gateway address (see FIG. 2, Root Router 150); see col. 7, lines 35-67. Neither La Porta nor Csapo explicitly discloses a proxy ARP so that a device can be spoofed into sending frames to the first gateways MAC address.

However, the above-mentioned claimed limitations are taught by Choyi. Choyi discloses the first gateway (see FIG. 1, Access Router 56) can provide a proxy ARP (see page 5, paragraph 49; a proxy ARP functionality) so that a device outside of the wireless system (see FIG. 1, a device, outside of WLAN 16, communication with mobile station 12) can be spoofed into sending frames addressed to the client IP address to the MAC address of the first gateway (see page 5, paragraph 45, 49). In view of this, having the combined system of La Porta and Csapo, then given the teaching of Choyi, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of providing a proxy ARP functionality, as taught by Choyi, since Choyi states the advantages/benefits at page 2, para. 16-28 that it would enable the proxy host/router to

send/receive diagrams on behalf of some other host. The motivation being that by having a proxy host/router performing the tasks on behalf of the original host, it will reduce the cost of routing all information to the original host, and improved timeless of delivery of diagram to the mobile node.

12. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta in view of Csapo, as applied to claims 1 and 16 above, and further in view of Sitaraman (U.S. 6,427,170).

Regarding claim 57, the combined system La Porta and Csapo disclose all limitation as described above in claims 1 and 16. Neither La Porta nor Csapo explicitly discloses information expires out of the database (see Sitaraman FIG. 1, Expry time; see Sitaraman col. 11, lines 59-67; removes expired IP address from database) unless the information is periodically refreshed (see Sitaraman col. 12, lines 60 to col. 13, lines 6; see col. 9, lines 24-40).

However, the above-mentioned claimed limitations are taught by Sitaraman. In view of this, having the combined system of La Porta and Csapo, then given the teaching of Sitaraman, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Csapo, for the purpose of providing a mechanism of removing expired IP address from the memory if they are not updated, as taught by Sitaraman, since Sitaraman states the advantages/benefits at see col. 11, lines 56-62; see col. 12, lines 14-20; see col. 4, lines 50-54 that it would provide a database of IP address revokes events for expired IP address if they are not updated. The motivation being that by removing the

expired IP address from the memory, is will provide much more scalable and distributed solution for managing dynamic IP address.

Allowable Subject Matter

13. New claim 63 is allowed.

14. Claims 15 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. Applicant's arguments with respect to claims 1, 12, 58,62, and 64 have been considered but are moot in view of the new ground(s) of rejection.

16. Applicant's arguments with respect to claims 25 and 33 have been fully considered but they are not persuasive.

Regarding claim 25, the applicant argued that, "...RARP of Fujimori is very different than the AARP of the invention...AARP...includes...determining an IP address for a client based upon the MAC address of the client..." in page 24, paragraph 2.

Regarding claims 12 and 25, in response to applicant's argument, the examiner respectfully disagrees with the argument above. Fujimori discloses a RARP, that is, Reverse ARP, where determining IP address for a client/station based upon the MAC address, as described above. As applicant argues above, an AARP, that is, Anti ARP, also determining IP

address for a client/station based upon the MAC address. Thus, both **anti** and **reverse ARP** performs the same function.

Regarding claim 33, the applicant argued that, "...Fujimori discloses an IP address of the client is obtained by snooping IP datagram originated from MAC address of the client...applicant cannot fine reference to these features..." in page 24, paragraph 6.

Regarding claim 33, in response to applicant's argument, the examiner respectfully disagrees with the argument above. Claim 33 recites, "...**at least one of** pinging the broadcast address $_1$, snooping IP datagram originating from MAC address of client $_2$, the first wireless node inspecting a DHCP acknowledgement $_3$. Since the claim clearly recites at least "one" of the three limitations, examiner is only required to show at least one of the three limitations. In particular, La Porta also discloses the first wireless access node obtaining the client information by inspecting a DHCP acknowledgement packet (see col. 32, lines 30-67). Fujimori discloses an IP address of the client (see FIG. 2, Node 18) is obtained by snooping IP datagrams originating from MAC address of the client (see FIG. 2, MAC/physical address of Node 18; see col. 1, lines 35-47; see col. 6, lines 50 to col. 7, lines 40). Thus, the combined system of La Porta, Csapo, Fujimori discloses limitations **labeled 2 and 3**, which are IP address of the client is obtained by snooping IP datagrams originating from MAC address of the client and inspection of a DHCP acknowledgement packet.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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9/27/05

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